



# Product Evaluation

MC16 | 0916

Engineering Services Program

*The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).*

*This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.*

*This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.*

*For more information, contact TDI Engineering Services Program at (800) 248-6032.*

**Evaluation ID:** MC-16

**Effective Date:** September 1, 2016

**Re-evaluation Date:** July 2020

**Product Name:** Westbury Aluminum Railing Liberty S10 Railing Systems

**Manufacturer:** Digger Specialties, Inc.  
3446 US 6 East  
Bremen, IN 46506  
(574) 546-5999

## General Description:

The Westbury aluminum railing Liberty S10 railing systems are comprised of aluminum top and bottom rails with spaced pickets located between the rail members. The railing system has an overall top rail length (inside of post to inside of post) of 96" with an overall rail height (bottom of bottom rail to top of top rail) of 40". Top and bottom rails are attached to "Power Post" structural posts by the way of die cast zinc collar brackets.

The Westbury aluminum railing Liberty S10 railing system consists of the following components:

- Top Rail: 1-3/8" high x 1-3/4" wide domed rectangular 6005-T5 aluminum extrusion.
- Bottom Rail: 1-1/4" high x 1-3/4" wide rectangular 6005-T5 aluminum extrusion with a 0.06" wall thickness.
- Top and Bottom Rail Insert: 15/16" high x 7/16" wide C-shaped PVC extrusion (non-structural) with a 0.05" wall thickness. Full length of rail.
- Collar Brackets (Top Rail): 2-7/16" high x 1-15/16" wide x 1-3/16" deep cast zinc socket bracket contoured to the shape of the top rail. Four 0.21" diameter holes for the attachment to the support post.
- Collar Brackets (Bottom Rail): 2-3/8" high x 1-15/16" wide x 1-3/16" deep cast zinc socket bracket contoured to the shape of the top rail. Four 0.21" diameter holes for the attachment to the support post.

- Balusters: 5/8" square x 0.04" wall thickness. 6063-T5 aluminum extrusion.
- Support Block: 2-7/16" wide x 1-1/4" deep x 2" high cast zinc profile.
- 2x2 Post: 2" square x 0.090" wall thickness. 6005-T5 aluminum extrusion with two internal longitudinal screw chases. 1/4" continuous fillet welded to 3-7/8" square x 1/2" thick 6061-T6 aluminum plate with four 0.40" diameter holes on 3-1/8" centers for anchors. Two 0.31" diameter counter sunk holes for post attachment screws. Four 5/16-18 holes for leveling screws. One 0.40" diameter center hole.

#### Limitations:

**Design Load:** The Westbury aluminum railing Liberty S10 railing system has a maximum allowable concentrated design load of 200 lb applied in any direction at any point along the top.

**Use:** The code occupancy classification is specified in Table 1.

**Configurations:** Refer to Table 1 for acceptable configurations.

**Railing System to Supporting Structure:** The attachment of the railing system to the supporting structure is not within the scope of this evaluation report. The attachment of the railing system to the supporting structure must be designed to resist the allowable concentrated design load for the railing system specified in this evaluation report with the load applied in any direction at any point at the top to transfer this load into the supporting structure.

**Table 1. Code Occupancy Classification**

Product	Guardrail Type	Code Occupancy Classification	
		IRC	IBC
Westbury aluminum railing Liberty S10 2" Square Post (8' x 42")	Level (In-line)	Limited to exterior and interior use as a guard rail system for balconies and porches for dwellings constructed in accordance with the IRC.	N/A

#### Installation:

The Westbury aluminum railing Liberty S10 railing system is fastened together in accordance with Table 2.

**Table 2. Fastening Schedule**

Connection	Quantity
Top Rail Bracket to Post	Four No. 10-16 x 5/8" (0.137" minor diameter) pan head square drive self-drilling stainless steel screws
Bottom Rail Bracket to Post	Four No. 10-16 x 5/8" (0.137" minor diameter) pan head square drive self-drilling stainless steel screws
Top Rail Bracket to Rail	One No. 10-16 x 5/8" (0.137" minor diameter) pan head square drive self-drilling stainless steel screws
Power Post Base Plate to Tube	Six No. 14-14 x 2" (0.190" minor diameter) flat head Philips drive stainless steel screws
Support Block to Bottom Rail	Two No. 10-16 x 5/8" (0.137" minor diameter) pan head square drive self-drilling stainless steel screws

**Note:** Keep the manufacturer's installation instructions available on the job site during installation. Use corrosion resistant fasteners as specified in the IRC, the IBC, and the Texas Revisions.